No. 677,161. Patented June 25, 1901.

A. R. WILSON & H. C. WOOD.

CHIMNEY CRIMPING MACHINE.

(No Model.) (Application filed Dec. 15, 1898.)

Fig. 1.

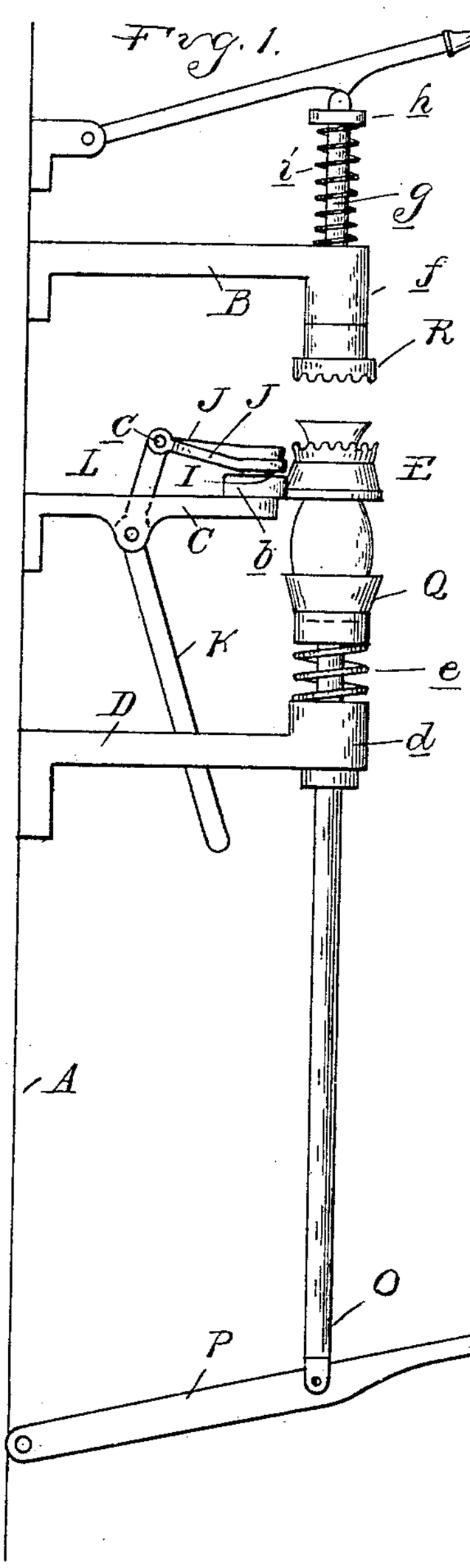


Fig. 2.

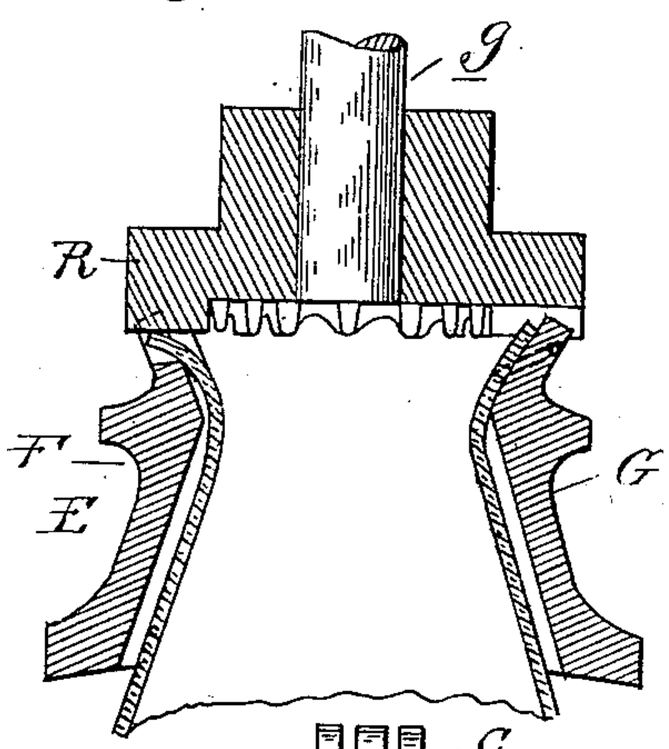


Fig. 3.

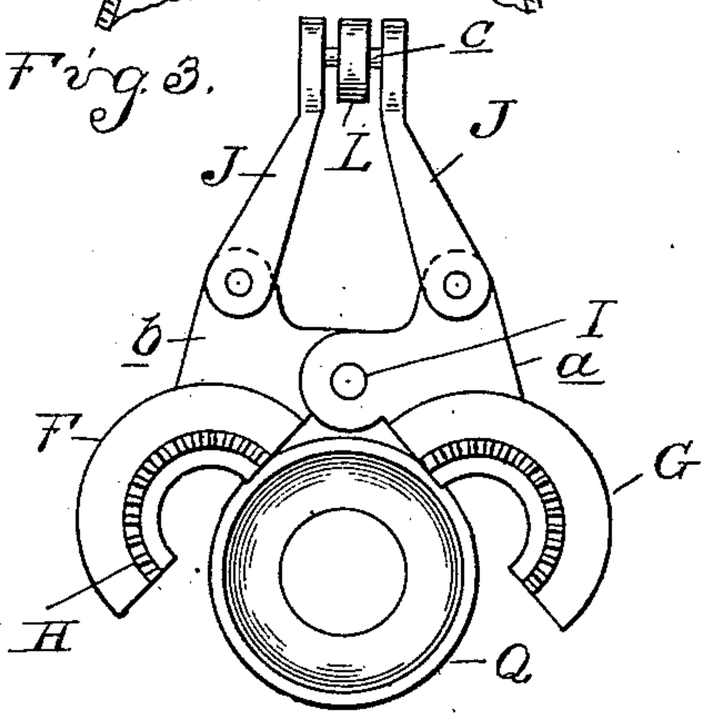
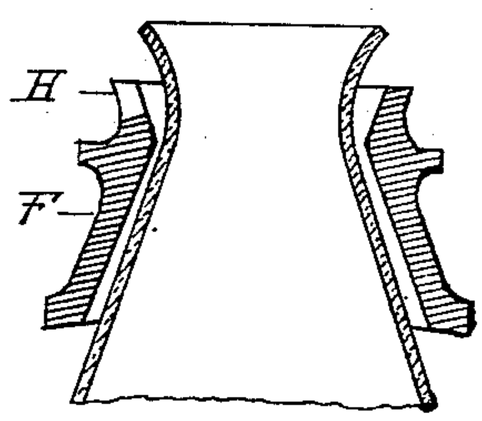


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

AMOS R. WILSON AND HARRY C. WOOD, OF TOLEDO, OHIO, ASSIGNORS TO THE TOLEDO GLASS COMPANY, OF SAME PLACE.

CHIMNEY-CRIMPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 677,161, dated June 25, 1901.

Application filed December 15, 1898. Serial No. 699,393. (No model.)

To all whom it may concern:

Be it known that we, AMOS R. WILSON and HARRY C. WOOD, citizens of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Chimney-Crimping Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention particularly refers to machines for crimping chimneys.

The object of the invention is to produce a machine that will crimp or corrugate the edge of a chimney having a flaring top without impairing the transparency of the glass in the flaring portion and which simplifies the operation, so that unskilled persons may operate it and produce a better article than heretofore.

With this object in view the invention consists, essentially, in a support, preferably in the form of a ring, in which the heated chimney is adapted to be placed and which supports the flaring end against distortion, and a crimping-die operated in any preferred manner adapted to crimp the chimney against the ring.

The invention further consists in the peculiar construction, arrangement, and combination of the various parts of the mechanism, which will be more fully hereinafter described, and shown in the drawings, in which—

Figure 1 is a side elevation of our improved crimping-machine, showing the chimney in readiness to be crimped. Fig. 2 is an enlarged detached view in section of the supporting-ring and the crimping-die, showing the parts in operative relation. Fig. 3 is a detached plan view of the supporting-ring with the actuating mechanism therefor; and Fig. 4 is a detached view in section of the supporting-ring with the chimney therein, the flaring top being shown at some distance above its seat.

In Fig. 1 the letter A designates a support of any preferred type, to which are fixedly secured the bracket-arms B, C, and D. From the middle arm C is pivotally secured the supporting-ring E and the actuating mechanism therefor.

The ring referred to we preferably form in two parts or members F and G, as plainly shown in Fig. 3, each member being provided with a series of crimping-teeth H upon the upper edges. The members are pivotally secured to each other by the pin I, which likewise secures the ring to the support. Upon the rear portions of the members just described are arms *a* and *b*, and to these arms are pivotally secured actuating-links J and J.

K designates a hand-lever having a pivotal connection with the bracket-arm C, preferably extending through said arm, as shown, and carrying at its end an extension L.

The pin *c* connects the two links J J and extends through the extension L, as shown.

By this construction it will readily be observed that upon the movement of the lever K outwardly or away from the support the ring members will be drawn apart until they assume a position as shown in Fig. 3 and that upon the reverse movement of the hand-lever the ring members will move together.

The bracket-arm D is provided with a bearing *d*, and through this bearing extends a rod or bearing O, pivotally secured at its lower end to a foot-lever P, which in turn is pivoted to the frame or support A. At its upper end this rod carries a chimney-support Q, conforming in configuration to the base of the chimney, and between said support and the bearing D is interposed a coiled spring *e*. The upper edge of the chimney being heated and being within the support Q, the ring members are closed about the top at some distance below the flaring portion thereof. The operator then moves the foot-lever P downward, which allows the flaring top of the chimney to settle within and rest upon the seat formed for the same in the closed ring. A crimping-die arranged above the ring is then adapted to be moved downward, so that the teeth thereon engage with the teeth upon the ring, producing the required crimp or corrugation in the flaring top.

The crimping-die referred to may be formed, essentially, as follows: At the end of the bracket-arm B is formed the bearing *f*, and in this bearing is arranged a stem or rod *g*. At the lower end this rod carries the crimp-

ing-die R and at the top above the bearing a shoulder or collar *h*. Between the collar and the bearing *f* is interposed a coiled spring *i*.

The means for operating the crimping-die comprises, preferably, a hand-lever S, which is pivotally connected to the support or frame A and is adapted to bear normally against the rod *g*.

It will be seen that only the extreme edge of the chimney need be heated, which can be done very quickly, much more so than in the usual method of crimping chimneys; also, that the ring holds the chimney-top against any possible distortion, and any one who can operate the die can crimp the chimney. The crimp is also very fine, and as no die is required to flare the mouth (it having been blown with flaring shape) the transparency is not impaired.

While we have shown a specific device for raising and lowering the chimney and die, we do not desire to be limited to such details in the broad features of our invention.

What we claim as our invention is—

1. In a crimping-machine for chimneys with a flaring end, a ring in which the under side of the flaring end of a chimney is supported, corrugations or teeth on the upper edge of the ring, and a movable die having complementary teeth to those of the ring, adapted to shape the edge of the chimney by compressing the edge between the two members.

2. In a crimping-machine for chimneys with a flaring end, a two-part ring adapted to be clamped about the chimney below the flaring end thereof, corrugations or teeth upon the upper edge of the ring, and a crimping-die adapted to crimp the chimney against the ring.

3. In a crimping-machine for chimneys with a flaring end the combination of a movable support adapted to receive the chimney-base, a two-part ring adapted to be closed about the chimney and to support the flaring end against distortion, means for lowering the base to cause the flaring mouth to rest in the ring, and a crimping-die for crimping the chimney-top against the ring.

4. In a crimping-machine for chimneys with a flaring end, the combination with a two-part ring adapted to be closed about the chimney below the flaring end, a support adapted to receive the chimney-base, means for lowering the base-support to bring the flaring end in contact with the ring and a movable crimping-die adapted to crimp the chimney against the ring, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

AMOS R. WILSON.
HARRY C. WOOD.

Witnesses:
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WM. S. WALBRIDGE.